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- **Hada, Satoshi**
Kariya-city, Aichi-pref. 448-0029 (JP)
- **Suzuki, Toshiyuki**
Kariya-city, Aichi-pref. 448-0029 (JP)
- **Niwa, Mitsunobu**
Kariya-city, Aichi-pref. 448-0029 (JP)

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(74) Representative: **Böckelen, Rainer**
Tiedtke-Bühling-Kinne & Partner (GbR),
TBK-Patent
Bavariaring 4
80336 München (DE)

(71) Applicant: **Denso Corporation**
Kariya-city, Aichi-pref., 448-0029 (JP)

(72) Inventors:
• **Kurokawa, Eiichi**
Kariya-city, Aichi-pref. 448-0029 (JP)

(54) **Gas concentration measuring apparatus compensating for error component of output signal**

(57) A gas concentration measuring apparatus is provided which includes a gas concentration sensor consisting of a pump cell, a sensor cell, and a monitor cell. The pump cell works to determine the concentration of O₂. The sensor cell works to decompose an oxygen containing gas such as NO_x and provide an output indicative of the concentration of NO_x. The apparatus also

includes an applying voltage determining circuit which looks up a predetermined voltage-to-current relation to determine a target voltage to be applied to the pump cell as a function of the current produced by the pump cell so as to preclude the pump cell from decomposing the oxygen containing gas component, thereby minimizing an error in determining the concentration of oxygen containing gas as a function of the output of the sensor cell.

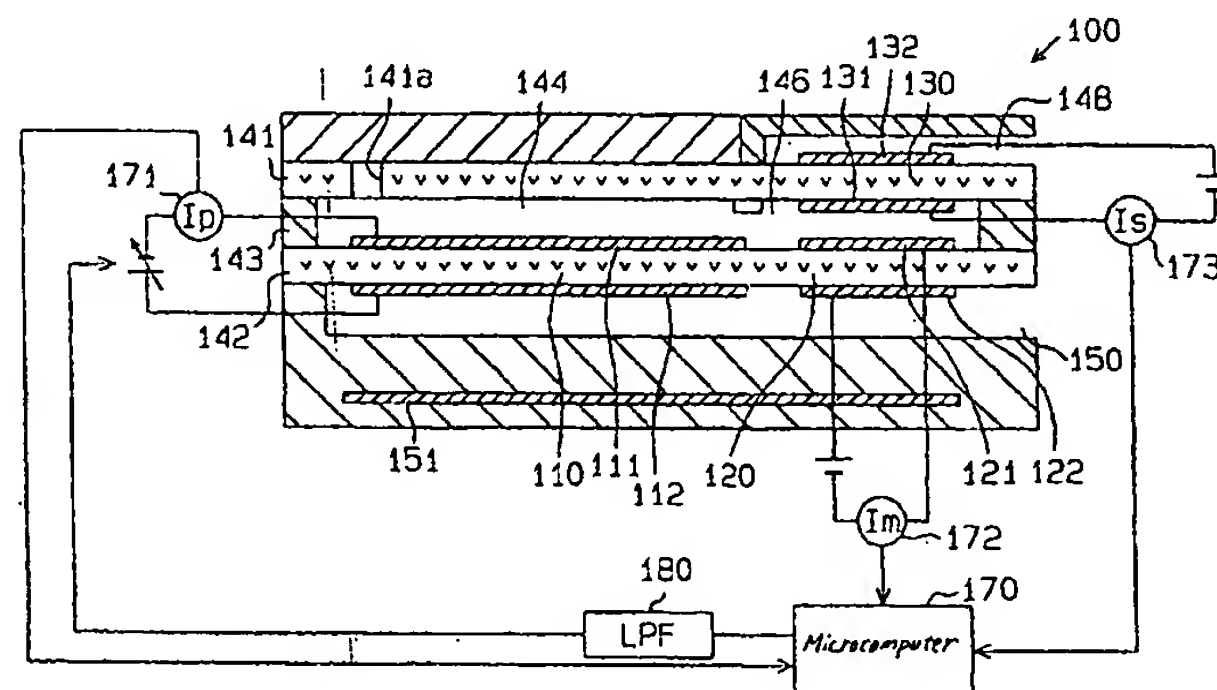


FIG. 1



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Y	* paragraphs [0019] - [0023], [0025] - [0030], [0034] - [0036], [0040] - [0068], [0143] - [0152] *	7,20-23, 27-29	
A	* figures 5,6,8,9,11,15,29 *	15,24	
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 5 April 2004	Examiner Meyer, F
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 5 April 2004	Examiner Meyer, F
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 5 April 2004	Examiner Meyer, F
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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims: _____
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims: _____



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**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 01 12 5865

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-14

2. claims: 15-19,24-26

3. claims: 20-26

4. claims: 27-29

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